

Aesthetix Io Eclipse (£16,700)

At first glance it looks like a hefty pre/power amplifier combo. Employing no fewer than 24 valves this Californian phono preamplifier sure makes a high-end statement
Review: **John Bamford** Lab: **Paul Miller**

I wanted to design the best moving-coil phono amplifier I could possibly make for my beloved Koetsu Rosewood Signature cartridge,' says Aesthetix's founder Jim White of the Io phono stage. 'And I wanted it to use valves throughout.'

The Io Eclipse is a statement product that has evolved over the years since Jim White's original Io design (now in MkII form), resulting in a hierarchical line-up of versions employing increasingly more esoteric and more costly internal components, as you step up through the range. Housed in two chassis the size of most manufacturers' power amplifiers, one unit comprises the phono stage itself, the other the power supply. The power supply is a wholly valve design too.

For audiophiles seeking the ultimate in vinyl replay, Aesthetix currently produces three versions of the Io: the 'basic' Io MkII (£5900); the Io Signature (£8100) employing upgraded internal components; and the Io Eclipse which not only includes cost-no-object StealthCaps in critical areas but additionally is housed in substantially upgraded external casework. The Io Eclipse costs £14,000, or £16,700 with independent L/R volume controls – as reviewed here.

TOTTING UP THE EXTRAS

Wait a mo'... an additional £2700 for a pair of volume potentiometers? Er, no, not exactly. The separate L/R volume controls are identical to those used in Aesthetix's partnering two-box Callisto line-level preamp, each control employing four silver contact 46-position switches ganged together in a unique configuration. Each switch comprises 46 Roederstein resistors, making a total of 184 per channel...

Says Jim White: 'All other volume controls sound different at lower levels than they do at higher levels, which is due

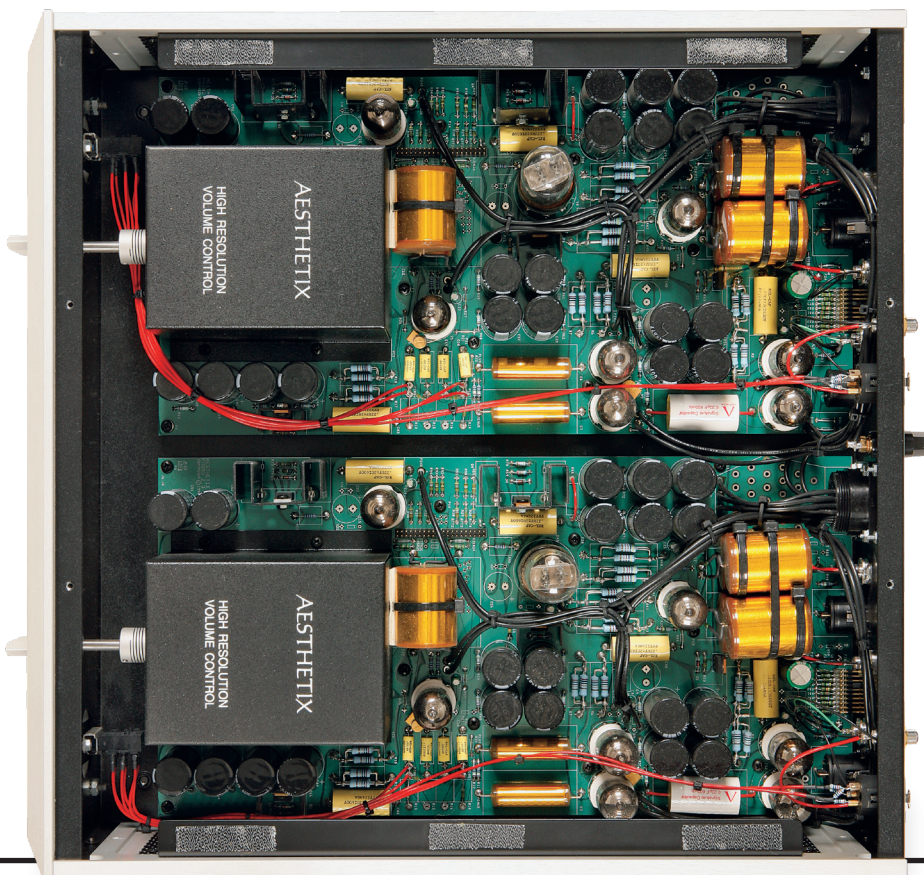
RIGHT: The Io Eclipse's main unit is dual mono in construction with left and right circuit boards, seen here fitted with optional 46-position mechanically switched volume controls that employ a total of 184 Roederstein resistors

to non-linear elements or the number of solder connections and resistors the signal must traverse.' Furthermore, with the option of adding the volume controls to the phono stage you get a 'bonus' line level input [see Lab Report, page 34].

A flagship Aesthetix preamplifier 'system', then, would comprise the Callisto Eclipse line preamp (£15,450, or £17,950 with remote control functionality) plus the Io Eclipse phono stage (£14,000). However, audiophiles requiring simply a phono input and solitary line input – for a CD player or, perhaps, a multi-input DAC – can save a packet by choosing the version of the Io Eclipse seen here (the one with volume controls) and feed it directly to a power amp. Counting the pennies, are we?

So there we have it. Oh, wait, there is more. I've said the Io and Callisto are two-box components with their power

supplies. The power supply we had for the Io was 'Stereo' mode, separately feeding the units' left and right channels. But if you wanted to go the whole hog – price be damned – both the Io and Callisto can be driven by two power supplies (each an extra £4500), providing a dedicated Dual Mono supply for each half of the preamp stage. Aesthetix's full-blown flagship preamplifier, therefore, would comprise six boxes. Allow me a few seconds while I punch some figures into a calculator... OK, that'll be £38,450 for manual operation; £40,950 with remote control (of volume only, not source selection), whereby two high-torque stepper motors are connected to the Callisto line preamp's volume shafts through belts and pulleys. You will also require one – or, perhaps, two – substantial equipment racks. Just for your preamp. Incidentally, remote volume control





appears not to be an available option with the volume-control-equipped lo Eclipse phono stage featured here.

DOS AND DON'TS

While we've stacked the lo's two boxes on top of each other for photographic purposes, this is not how you will use them. The lo's power supply generates a fair amount of heat, the main unit rather less, consequently in a system layout it's important to keep the power supply as far removed from the phono stage as is practical: certainly on a separate shelf spaced well apart in an

equipment rack. The L/R umbilical cables connecting the two are a generous 1.5m in length. Because the lo contains no power-up mute circuitry it is necessary to follow the (always sensible) precaution of

turning it on before your power amplifier. And you should mute your power amplifier before switching the lo between its phono input and line input.

Valve aficionados keen to tweak and

experiment with various quality levels/types of valve might be interested to learn that 'tube rolling' in the lo is clearly discouraged by Aesthetix. To quote the user manual: 'The lo has been designed

'It was soon evident that the lo Eclipse can transport you to another place'

REACHING FOR THE STARS

What price the ultimate phono stage? You might regard the likes of Leema Acoustics' Agena, Audia's Flight Phono and Manley's Steelhead as mere budget esoterica, with their £3k-£6k price tags. If you're reaching for the stars, Audio Research's valve/FET hybrid Reference Phono 2 features RIAA and early Columbia and Decca EQ curves that, with loading options, can all be called up by remote control. Abbingdon Music Research's AMR PH77 similarly offers this plus built-in A-to-D conversion for those archiving vinyl to computer HDD. Other brands to include on your ultimate shopping list? There's Whest Audio, Conrad-Johnson, Zanden Audio Systems, Lamm Industries and Boulder Amplifiers, to name just a few. Some are solid-state, some use valves, several are hybrids and many employ transformers for MC inputs. The Aesthetix lo, however, uses tubes throughout.

ABOVE: The dual-mono preamp (top) has independent Aux/MC input selectors and L/R stepped volume controls. Both LEDs light up on the PSU (bottom) once it's fully warmed-up

to minimise differences between tube brands... such differences are minimal and in most cases not worth the efforts involved in finding and purchasing them. A great deal of listening was invested in finding the optimal tube types and brands for the lo. It is therefore not recommended to try different tube brands and, more importantly, different tube types.'

TRANSPORTS OF DELIGHT

Such is the exclusivity of this rare beast that HFN's sample of the lo Eclipse was the only one in the country at the time of writing. What a privilege to have the opportunity to hear it in my system. And how maddening that I could enjoy it for only a few short weeks! As you might imagine, the UK distributor had timetabled many demonstrations to proprietors of high-end audio emporia up and down the country eager to experience it for themselves.

It was soon evident that the lo Eclipse has a magical ability to transport you to another place – not to a moon of Jupiter, or anywhere else beyond our world for that matter, but, more vitally, to a studio or concert hall where a recording has taken place. Analogue favourites such as ↻

PHONO STAGE

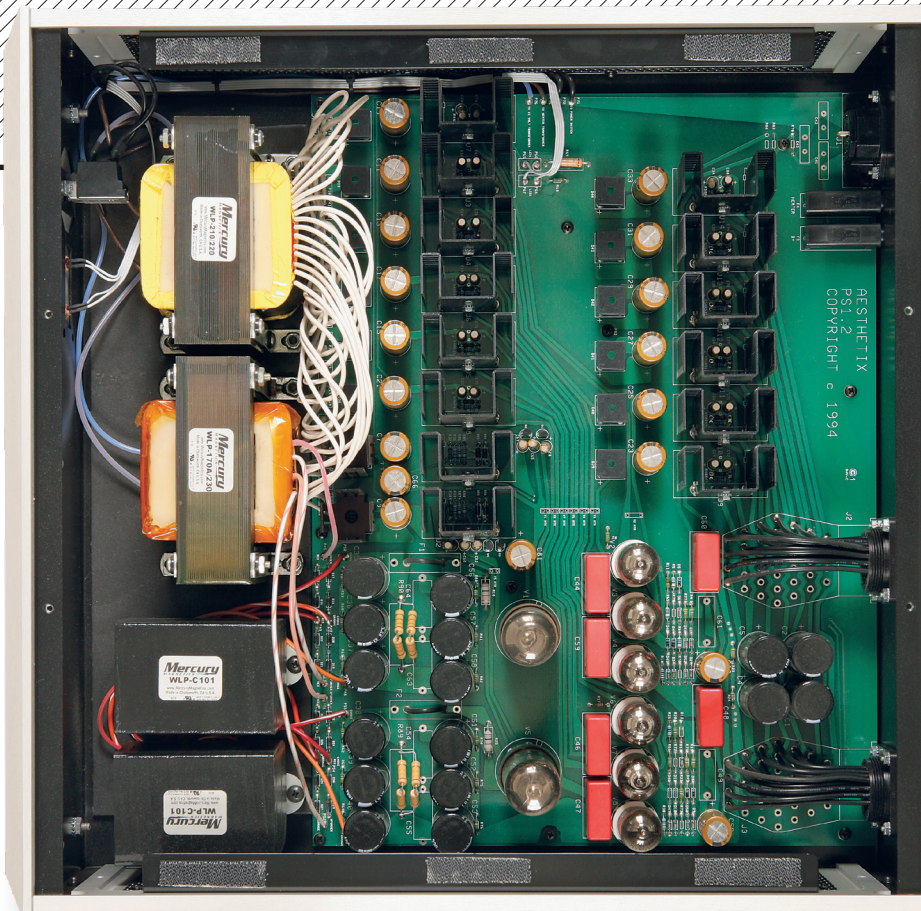
STARTING AS A HOBBY...

Jim White's original design concepts for the Io date back to the early '90s, when he was working at Theta Digital. What started as a part-time hobby, building a phono stage for his home system, led eventually to Jim later setting up his own manufacturing company.

'Because of my background – working at Theta – people might consider me a digital engineer, but I've always had a passion for vinyl and I'm equally comfortable working in analogue design as I am in digital electronics. For my personal use I was determined to make a MC stage that was 100% tube-based from end to end, without step-up transformers. When my audiophile friends heard it they said I should make it commercially... so I did! Initially it was a part-time business, building Ios in my spare time during evenings and weekends, but in 1999 I left Theta to set up Aesthetix as a proper business with the Callisto line amplifier and Io phono stage.

'People thought I was pretty crazy trying to market a two-chassis, 24-valve phono amplifier at a time when vinyl was pretty much a forgotten medium in the 1990s. Today, I can't help smiling when I see the plethora of phono amplifiers that have come to market subsequent to the increased availability of new LP pressings.'

The company also produces a less wallet-busting Saturn Series. Watch out for its new Pandora DAC and Romulus CD player – coming soon.



Vox Turnabout's 1967 recording of Rachmaninov's *Symphonic Dances* performed by the Dallas Symphony Orchestra under Donald Johanos (I played my limited edition Athena reissue on JVC supervinyl, cut by Doug Sax in 1988, ALSW-10001) and Sheffield Lab's ultra-real *Comin' From A Good Place* by Harry James recorded direct-to-disc in 1977 [LAB 6] sounded breathtakingly real and 'alive'.

The sound of the Dallas SO was rich in texture and tonal colour, the image of the orchestra in the concert hall sharply etched. Where so often the sound of the piano is swamped by the lyrical sweep of the strings, it remained clearly audible in the auditorium. The orchestration captured in this famous recording contains a colourful palette of strings, horns, woodwinds and – unusually – an alto saxophone too, alongside brightly illuminated percussion which has razor-sharp transient clarity. Via the Io Eclipse the percussion possessed tremendous attack and resonance, sounding explicit without ever appearing brittle, as can sometimes be the case with this Athena reissue. The explosive dynamics of the bass drum and timpani were tightly controlled and the stereo spread realistically compact, given the close-to-the-stage perspective of the recording.

'The Foot Stomper' from the Harry James' audiophile album was similarly vivid and energetic, the big band spread in

ABOVE: Stereo power supply is also a tube design. Power transformer has 14 secondary windings that are individually regulated for both the supply and main unit's valves

holographic fashion between and beyond the plane of the loudspeakers. The verve and vibrant resonance of the brass, the sharp leading edges of transients, the

sound of wooden drum sticks striking skins and cymbals... the Io Eclipse brought everything startlingly to life.

'I can't help smiling when I see the plethora of phono amps'

DIFFERENT DECKS

Such is the 'open window' of the Io

Eclipse that the differences in presentation between three turntable front ends I tried were far from subtle. Listening to 'My Home Is In The Delta' from Muddy Waters' *Folk Singer* LP (mine is an Abbey Road cut on Discovery Sounds, HDR 1001) showed the Ortofon Cadenza Blue MC cartridge in my Rock Reference deck to sound warm and the more rounded of the three, with deep and controlled bass and a dark hue compared to the more delicate-sounding Clearaudio Innovation deck fitted with a highly refined (and much more expensive) da Vinci V2 cartridge. This sounded crisp and fresh, if a tad leaner in the bass. Systemdek's massive 3D Reference turntable fitted with SME Series V and rarefied Transfiguration Orpheus MC was bold and enormously powerful through the lower registers, less explicit than the ☺

LAB REPORT

AESTHETIX IO ECLIPSE (£16,700)

This huge preamplifier includes three stages of gain, each comprising a pair of 12AX7 triodes, prior to a wholly passive RIAA eq stage. The combination, including losses through the passive eq, amount to a total gain of +67.8dB, the fourth stage, with its stepped volume, offers a further +8.8dB bringing the total to +76.6dB (balanced in/out). The final stage is also used by the Aux input and is ideal for modern line-level sources, offering a low and uniform ~0.004% distortion from 20Hz-20kHz, 1V out [see black infill, Graph 2 below]. The preceding three stages bring phono distortion up to 0.06-0.1% [red infill]. Both inputs incur some additional, possibly supply-related, noise through the midrange and upper treble that brings the A-wtd S/N to 82dB (Aux) and 57dB (MC) – see graphs on line.

The maximum output is a massive 38V from a low 65ohm source impedance, albeit with an increase to 370ohm at 25Hz. The phono input, with its 0.15mV sensitivity is clearly aimed at low/medium output MC pick-ups. The MC input headroom is generous enough at 12mV (1% THD) bearing in mind the huge overall gain offered by the Io Eclipse, but I'd advise against using high output MCs. Importantly, the headroom and phono gain are independent of volume position because the latter is built into the fourth, buffered output stage only. Frequency response is dependent on physical volume position, however, with a fully clockwise setting delivering a 'sweetening' -1.8dB/20kHz and -13.6dB/100kHz [see black Aux trace, Graph 1, below] while the 12 o'clock setting used for its phono response measurement (0.5mV in/1V out) delivers a more extended -0.15dB/20kHz and -4.9dB/100kHz [dashed red phono trace, graph 1]. PM



ABOVE: Single-ended (RCA) and balanced (XLR) inputs/outputs are provided – but you can't use both simultaneously. MC cartridge loading is set via plug-in jumpers

Rock/Ortofon combo in its bass detail, yet as with the Clearaudio rig, with crisper, more open high frequencies. It's all a matter of personal taste (and cost) for sure, the point being that the Aesthetix was highly revealing of the differences. Swapping cartridges between decks might have been fun to try if I'd more time to experiment, but I was far too busy exploring the depths of my record collection, and enjoying every minute of it.

'Whole Lotta Love' and 'Livin' Lovin' Maid (She's A Woman)' from *Led Zeppelin II* sounded as hot-headed and explosive as I can ever recall, while the ethereal lyricism of 'Marlene On The Wall' and the more edgy 'Straight Lines' from Suzanne Vega's eponymous debut album [A&M AMA 5072] sounded altogether more spacious and three-dimensional than I could possibly have imagined.

So addictive is the revelatory transparency of the Io Eclipse that I found myself re-discovering countless records I hadn't played since the dawn of the 21st century. Better still, I was pulling out gems from my collection I'd forgotten I even owned, such as Rickie Lee Jones' 10in *Girl At Her Volcano* [Warner 92-3805-1]. 'My Funny Valentine', always difficult to reproduce, sounded relaxed and highly polished, the Io Eclipse taking the dynamics of Rickie's searing vocal projections in its stride.

THE LINE INPUT

As the focus of my listening was on the reproduction of countless vinyl records, I haven't even begun to describe the ear-opening revelations disclosed by the auxiliary line-level

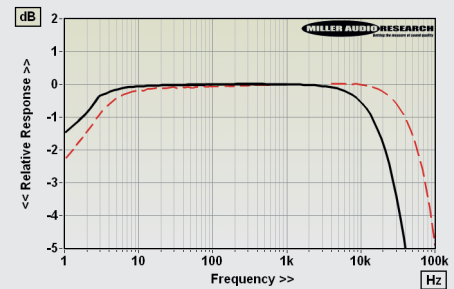
input included in this version of the Io Eclipse. The full-on blast of 'Blackest Eyes', the opening track of Porcupine Tree's *In Absentia* album on DVD-A [DTS Entertainment 69286-01111-9-6], sounded stellar. Where it so often collapses into a wall of sound, the fabulous resolution of fine detail and tight, tuneful bass helped make clear sense of this dense production, bringing to the fore the jangly guitars and peeling away myriad layers to reveal all manner of studio effects usually buried in the mix.

Such transparency brings rewarding musical enlightenment. On Barb Jung's *Just Like A Woman* SACD [Linn Records AKD 309] the stark arrangement of 'Lilac Wine', with its ticking clock and cascading piano notes, was considerably more poignant than I've previously observed, such is the manner in which the Io Eclipse draws you in to the music. Danny Thompson's accompanying slurred bass appeared almost to be weeping... ☹

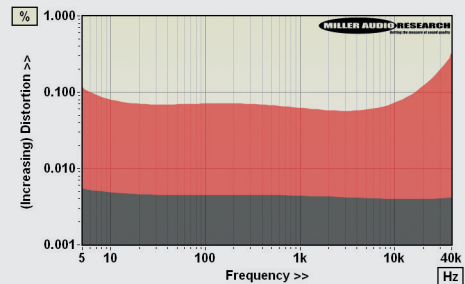
HI-FI NEWS VERDICT

Detailed and airy without sounding obviously analytical, the Io Eclipse is a heavyweight that can claim to be one of the finest phono stages money can buy. This version with optional volume controls and auxiliary line input makes it a fabulous (if minimalist) high-end preamp too. It is uncommonly articulate, and quiet, with not a hint of the rose-tinted 'tubey' quality some might expect from an all-valve design.

Sound Quality: 89%



ABOVE: Frequency response, 1Hz-100kHz. Aux input (black) and MC input (red dashed) – volume position, not input or level, determines treble extension



ABOVE: Distortion versus extended frequency from 5Hz-40kHz at 1V/47kohm. Aux (black) vs. MC (red)

HI-FI NEWS SPECIFICATIONS

Input loading (MC)	10ohm – 10kohm (47kohm option)
Input sensitivity (re. 0dBV, Aux/MC)	360mV / 0.147mV (balanced)
Input overload (Aux/MC)	>8V / 12mV (balanced)
Maximum output (re. 1% THD)	35V (65-370ohm o/p impedance)
A-wtd S/N ratio (Aux/MC)	82.2dB / 57.1dB
Frequency response (20Hz-20kHz)	+0.0dB to -0.13dB
Distortion (20Hz-20kHz, Aux/MC)	0.0039-0.0045% / 0.056-0.11%
Power consumption	310W
Dimensions (WHD)	441x141x450mm (each)